PRESS BULLETIN 559 *May, 1941*

UNIVERSITY OF FLORIDA
AGRICULTURAL EXPERIMENT STATION
WILMON NEWELL, Director
GAINESVILLE, FLORIDA

IMPERIAL MYCOLOGICAL INSTITUTE 2 OCT 1941

GARDEN CHRYSANTHEMUMS FOR FLORIDA

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Chrysanthemums of the pompon and single types are regularly grown for instruction and demonstration in the gardens of the University of Florida. During the past decade many commercial varieties have been tried out of doors, and as a result of this experience the following observations are presented for the benefit of Florida gardeners.

Probably the most troublesome insect pests are the flower thrips which are usually present in great numbers during the warm, dry weather of early autumn. Control by a contact insecticide such as nicotine sulphate, pyrethrum or rotenone has been urged repeatedly, but many backyard gardeners find it impracticable to spray or dust the few plants that they grow. It is suggested, therefore, that varieties be grown which mature during November and December. At this time of the year lower temperatures usually aid materially in reducing infestation by flower thrips, and the blossoms are of much better quality. Most of the varieties listed in Table 1, because they are late bloomers, will show little of the browning of the petals which is caused by the feeding of thrips.

Leaf spotting of chrysanthemums, the result of infection by several different fungi, is particularly serious in Florida, and in certain years clean foliage is restricted to small rosettes just beneath the blossoms. A copper fungicide such as cuprous oxide or Flordo is strongly recommended. Unfortunately, casual gardeners seldom apply spray materials throughout the season.

It will be noted in Table 1 that some varieties show a marked susceptibility to leaf-spotting fungi, while others are less severely attacked. In the event copper fungicides are not to be used as a protection against leaf-spot, careful removal of the browned lower leaves should be effective in reducing the extent of the disease. One hand-picking in

September and another in October has kept many varieties relatively free of spotted foliage.

It has been observed that plantings maintained by division of old clumps are much more severely attacked by the leaf spotting diseases than those which are renewed each season by fresh tip cuttings. For this reason, it has been the custom at the University gardens to destroy the plants as soon as the flowers are cut, and this is strongly recommended.

Rooted cuttings, secured from a wholesale grower each May, should mature into plants that show remarkably little leaf spot. While this practice is more expensive than the usual method of increasing garden chrysanthemums by division, the improvement in quality will more than pay for the planting stock each season.

As a further precaution against the leaf diseases, it is suggested that rotation between several plots be practiced. Two or three sunny areas that can be used in alternating years will give good results and these may be planted to annuals or bulbs in the interim.

Heavy applications of cow manure well in advance of planting, supplemented by light, bi-weekly feedings of a balanced fertilizer, should provide adequate nutrients for garden chrysanthemums.

A square wooden garden stake should be driven close by each plant, with the plant being tied to this support every eight or ten inches with heavy cotton cord. Wire stakes are likely to whip in the wind and bend under the weight of water-filled blossoms, when used in outdoor plantings.

Table 1 is appended as an aid in the selection of varieties and it will be noted that the kinds starred with an asterisk are particularly outstanding. While the flowering dates are considered typical for northern Florida, it must be pointed out that rainfall, temperature and the location of one's garden will influence these dates and one may expect a variation of ten days in either direction.

SUGGESTIONS

1. Use November-flowering varieties to avoid serious thrips injury.

2. Avoid leaf spot diseases by destroying old plants.

3. Replant each spring with fresh stock grown from clean tip cuttings.

4. Spade manure into the bed well in advance of planting, and apply a balanced fertilizer in small amounts every two weeks.

5. Tie the plants to stakes so that the stems will not bend and break from the weight of water-filled blossoms.

TABLE 1.—GARDEN CHRYSANTHEMUMS FOR FLORIDA—PRELIMINARY REPORT.

VARIETY [1]	Color	Date of Full Bloom	Average Height of Plants	Average Diam. of Plants	Average No. of Flowers	Av. Diam. of Open Flowers	Foliage
*Avalon	Bronze	Nov. 18	3′ 6″	15″	50	2″	Sparse
Buttercup	Yellow	Nov. 18	5′	20″	80	1¾″	Good
Chicago Pearl	White	Nov. 1	4′	24″	150	1½″	Good
Christmas Cheer	Red	Nov. 9	5′	36″	300	2″	Excellent
Comanche	Bronze	Nov. 20	4′ 3″	23″	150	1½″	Fair
Cordova	White	Nov. 19	4′ 2″	24″	200	2″	Fair
Dark Roselea	Pink	Nov. 20	3′ 9″	16″	150	1½″	Good
*Dorothy Turner	Bronze	Nov. 22	2′ 8″	22″	130	1¼″	Excellent
Frank Wilcox	Bronze	Nov. 11	3′ 8″	18″	125	1¾″	Fair
Glow	Bronze	Nov. 22	3′ 4″	18″	130	1½″	Very poor, badly spotted
Helen Hubbard	Red	Nov. 5	5′	18″	75	2½″	Weak and badly spotted
Legal Tender	Yellow	Nov. 19	4′ 5″	24″	200	1¾″	Fair
Loris	Bronze	Nov. 21	3′ 3″	24″	85	1¾″	Very poor
*Marguerite Waite	Pink	Nov. 9	4′ 10″	28″	150	2″	Excellent, very robust
*Miss Gladys	Bronze	Nov. 9	5′	31″	150	2½″	Excellent
Modena	Yellow	Nov. 19	3′ 6″	12″	75	1¼″	Sparse
*Mrs. E. D. Godfrey	Pink	Nov. 9	5′	34″	175	2″	Excellent
*Mrs. Mary Hooker	Red	Nov. 5	5′ 11″	28″	225	3″	Excellent
Norma	White	Nov. 7	4′ 6″	18″	100	2″	Wilts badly
*November Bronze	Bronze	Nov. 12	4′	22″	150	1¾″	Excellent
*Pasadena	Bronze	Nov. 1	5′ 7″	33″	200	2″	Excellent
Perfecto	Yellow	Nov. 11	4′ 6″	20″	150	1½″	Good
*Princeton	Bronze	Nov. 15	4′ 10″	20″	110	2″	Sparse
*Rev. Horace Bushnell	White	Nov. 1	4′ 3″	18″	125	1¾″	Excellent
Rowenna	Bronze	Nov. 20	3′ 9″	16″	130	1½″	Very poor
*Stardust	Bronze	Nov. 21	4′ 4″	20″	200	1¼″	Excellent
Usona	Pink	Nov. 23	3′ 9″	22″	225	1½″	Excellent, no spot
White Roselea	White	Nov. 27	3′ 7″	20″	150	1¼″	Poor
*Wildfire	Red	Nov. 17	4′ 9″	26″	150	2″	Excellent
Yellow Cordova	Yellow	Nov. 11	3′ 6″	18″	100	1½″	Very poor
Yellow Christmas Cheer	Yellow	Nov. 18	4′	20″	125	1½″	Excellent
*Yellow Fellow	Yellow	Nov. 1	4′ 2″	18″	125	1½″	Fair
*Yuvawn	Yellow	Nov. 11	2′	16″	75	1½″	Good

[1] Three plants of each of the 33 varieties were grown.
* Outstanding merit.

IMPERIAL MYCOLOGICAL
22 SEPT. 1941
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